

Application Serial No.: 09/896,682  
Attorney Docket No.: 01CON303P

**In the Claims:**

**Claim 1 (currently amended):** A method for coding a speech signal comprising:

estimating a spectral content of a speech signal ~~by determining a defined reference spectral response representative of the spectral content of the speech signal;~~

determining if the estimated spectral content of the speech signal is representative of one of a plurality of defined reference spectral responses including an IRS spectral response and an MIRS spectral response;

selecting a preferential coding algorithm from an assortment of coding algorithms based on the determining the estimated spectral content of the speech signal;

coding the speech signal in accordance with the selected coding algorithm, where the selected algorithm controls the operation of at least one of a pre-processing filter, a post-processing filter, a coding control coefficient, a weighting filter, a synthesis filter, and a quantization table;

wherein the coding of the speech signal in accordance with the selected coding algorithm compensates for at least one of a ~~spectrally flat speech signal~~, an IRS speech signal, and an MIRS speech signal to produce a frequency-response compensated speech signal.

**Claim 2 (canceled).**

**Claim 3 (original):** The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of the pre-

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processing filter, the desired filter response configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

**Claim 4 (original):** The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of the post-processing filter, the desired filter response configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

**Claim 5 (original):** The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of the weighting filter, the desired filter response configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

**Claim 6 (original):** The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of the synthesis filter, the desired filter response configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

**Claim 7 (original):** The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of at least one of the synthesis filter and the weighting filter of an adaptive codebook section of an encoder.

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**Claim 8 (original):** The method according to claim 1 wherein the selection of the preferential coding algorithm comprises selection of a desired filter response of at least one of the synthesis filter and the weighting filter of a fixed codebook section of an encoder.

**Claim 9 (original):** The method according to claim 1 wherein the quantization table comprises at least one of an adaptive codebook section and a fixed codebook section of an encoder.

**Claim 10 (currently amended):** A method for coding a speech signal, the method comprising:

estimating a spectral content of a speech signal ~~by determining a defined reference spectral response representative of the spectral content of the speech signal;~~

determining if the estimated spectral content of the speech signal is representative of one of a plurality of defined reference spectral responses including an IRS spectral response and an MIRS spectral response;

varying at least one coding parameter based on ~~the estimated spectral content of the speech signal~~ the determining;

coding the speech signal in accordance with the varied coding parameter, the varied coding parameter associated with at least one of a preprocessing filter, a post-processing filter, a coding control coefficient, a weighting filter, a synthesis filter, and a quantization table;

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wherein the coding of the speech signal in accordance with the varied coding parameter compensates for at least one of a ~~spectrally flat speech signal~~, an IRS speech signal, and an MIRS speech signal to produce a frequency-response compensated speech signal.

**Claim 11 (canceled).**

**Claim 12 (original):** The method according to claim 10 wherein the variation of the at least one coding parameter comprises selection of a desired coding parameter of the pre-processing filter, the desired coding parameter configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

**Claim 13 (original):** The method according to claim 10 wherein the variation of the at least one coding parameter comprises selection of a desired coding parameter of the post-processing filter, the desired coding parameter configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

**Claim 14 (original):** The method according to claim 10 wherein the variation of the at least one coding parameter comprises selection of a desired coding parameter of the weighting filter, the desired coding parameter configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

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**Claim 15 (original):** The method according to claim 10 wherein the variation of the at least one coding parameter comprises selection of a desired coding parameter of the synthesis filter, the desired coding parameter configured to enhance perceptual voice quality of the coded speech signal based on the estimated spectral content.

**Claim 16 (original):** The method according to claim 10 wherein the variation of the at least one coding parameter comprises selection of a desired coding parameter of at least one of the synthesis filter and the weighting filter of an adaptive codebook section of an encoder.

**Claim 17 (original):** The method according to claim 10 wherein the variation of the at least one coding parameter comprises selection of a desired coding parameter of at least one of the synthesis filter and the weighting filter of a fixed codebook section of an encoder.

**Claim 18 (original):** The method according to claim 10 wherein the quantization table comprises at least one of an adaptive codebook section and a fixed codebook section of an encoder.

**Claim 19 (new):** The method according to claim 1 wherein the estimating, the determining, the selecting and the coding are performed periodically during a conversation that exceeds a duration threshold, such that during the conversation the selecting may select a different preferential coding algorithm from the assortment of coding algorithms based on the determining.

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**Claim 20 (new):** The method according to claim 10 wherein the estimating, the determining, the varying and the coding are performed periodically during a conversation that exceeds a duration threshold, such that during the conversation the varying may further vary the at least one coding parameter based on the determining.